

# **LOUISIANA DEPARTMENT OF WILDLIFE & FISHERIES**



**OFFICE OF FISHERIES  
INLAND FISHERIES SECTION**

**PART VI -A**

**WATERBODY MANAGEMENT PLAN SERIES**

**TICKFAW RIVER**

**HISTORY & MANAGEMENT ISSUES**

# **CHRONOLOGY**

May 2014 - Prepared by  
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# HISTORY

## GENERAL INFORMATION

### Description

Tickfaw River is a fifth order stream and a tributary of Lake Maurepas. It drains portions of southwest Mississippi and southeast Louisiana. The majority of the watershed consists of Maurepas Swamp and surrounding developed land and agriculture. During low water stages, Tickfaw River discharge is minimal. The lower reaches can come under direct tidal influence and can experience reversal of flow and saltwater inundation.

### River stage

Tickfaw River at Holden, Louisiana

<http://water.weather.gov/ahps2/hydrograph.php?wfo=lix&gage=holl1>

Flood stage at Holden is at 15 feet National Weather Service (NWS) stage.

### Parishes located

St. Helena, Tangipahoa and Livingston Parishes

([APPENDIX I – MAP AND PARISHES](#)).

### Border waters

Natalbany River

Hog Branch

Blood River

Lizard Creek

Lake Maurepas

## ACCESS

### Boat ramps

Table 1. Locations of boat ramps for Tickfaw River, LA.

RAMP NAME	COORDINATES*	
Warsaw Landing	30.388284	-90.554668
Public Landing	30.377197	-90.550521
Tickfaw Marina	30.372812	-90.550396
* Coordinates listed in NAD 83, decimal degrees.		

([APPENDIX II – MAP AND LANDING](#))

### Piers

Tickfaw State Park

Public Landing

### State/Federal facilities

Tickfaw State Park ([APPENDIX III – MAP AND STATE PARK](#))

## PHYSICAL DESCRIPTION

### Timber type

Slash pine (*Pinus elliottii*), loblolly pine (*P. taeda*) and scattered hardwoods dominate the upland forest lands. Bald cypress (*Taxodium distichum*), black willow (*Salix niger*) and tupelo gum (*Nyssa aquatica*) dominate the lowland swamplands.

### Average depth

12 feet

### Water fluctuation

Tickfaw River at Holden had a historic high crest of 21.04 feet and a historic low of -0.10 feet NWS stage. High water periods are typical for late spring/early summer. High water is also influenced by local tropical storm events. Extremely low water (less than 1.0 feet at Tickfaw River at Holden) is rare and only occurs during extreme drought.

### Shoreline development

Less than 5% of the shoreline is developed by landowners. Most developments are camps and houses, and are located upriver of Maurepas Swamp.

## EVENTS / PROBLEMS

- Tickfaw River and its tributaries are subject to fish kills and saltwater intrusion during tropical storm events.

## MANAGEMENT ISSUES

## AQUATIC VEGETATION

### Nuisance species

Common salvinia and water hyacinth have been the main subjects of access and habitat complaints over the past few years. Common salvinia is scattered throughout the basin and is constantly being restocked by the flushing and draining of adjacent swamps and bayous. Within the river system, the desire to own/sell waterfront property has led to numerous man-made canals being created over the past 4 decades. These canals are typically 50 to 200 feet wide and are dead-end offshoots of the main channel of the river. They are lined with houses, camps, boat slips, docks, and an occasional boat ramp. The canal systems are rarely designed so that river water can flow through unimpeded (i.e. horseshoe in shape, etc.). Consequently, these dead-end canals have no inherent “flushing” mechanism to remove

floating vegetation. With little exception, some form of floating aquatic vegetation enters these canals each year, remains in place due to the stagnant water conditions, and thrives. When the vegetation growth in these canals reaches critical mass, the home/camp owners complain and spray crews are dispatched to chemically treat the vegetation.

Estimates of vegetation coverage (as of September 30, 2013) are provided below:

#### Problematic Species

Common Salvinia (*Salvinia minima*) – 50 acres

Water Hyacinth (*Eichhornia crassipes*) – 20 acres

Duckweed (*Lemna spp.*) – 15 acres (mixed in with other problematic species)

#### Beneficial Species

Yellow Water Lily (*Nymphaea mexicana*) – 80 acres

Coontail (*Ceratophyllum demersum*) – 80 acres

#### Control Measures

Common salvinia is controlled with foliar applications of diquat (0.75 gallons per acre) and a non-ionic surfactant (0.25 gallons per acre) from November 1 through March 31. A mixture of glyphosate (0.75 gallons per acre) and diquat (0.25 gallons per acre) with Aqua King Plus (0.25 gal/acre) and Air Cover (12 oz./acre) surfactants is used outside of that time frame.

Water hyacinth is controlled with foliar applications of 2,4-D at a rate of 0.5 gallons per acre. During the colder months when plant activity is slowed, or if the problem area was in a restricted zone, diquat (0.75 gallons per acre) with a non-ionic surfactant (0.25 gallons per acre) is used.

The Tickfaw River generates a small number of complaints each year, and they are addressed accordingly. An average of 85 acres of vegetation is chemically treated annually. The majority of the treated vegetation is common salvinia. The remaining acreage is composed of water hyacinth, water lettuce, water paspalum, alligator weed and duckweed (Table 2). The Tickfaw River is sprayed an average of 5 days per year.

The use of herbicides is an important component of the LDWF integrated pest management program. The proper selection and use of herbicides is essential to achieve cost effective benefits and to avoid damage to non-target species. Each product listed has been approved by the Environmental Protection Agency for aquatic use. Aquatic vegetation is treated according to the standard operating procedures for the application of herbicides as adopted by the LDWF Inland Fisheries Section (Table 3).

Table 2. Foliar herbicide treatments by acres from 2005 – 2013.

<b>TICKFAW RIVER ACRES OF AQUATIC VEGETATION TREATED BY YEAR</b>									
<b>PLANT</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Alligator weed	3	2	11	-	-	7	32	26	294*
Common salvinia	22	84	50	38	100	12	70	57	15
Water paspalum	1	-	-	-	-	6	9	-	-
Water hyacinth	-	-	-	-	-	-	27	2	66
Water lettuce	10	1	13	-	-	3	-	-	-
Duckweed	-	-	-	-	-	-	24	4	-
Other	8	-	-	-	3	-	-	9	23
<b>TOTAL:</b>	<b>44</b>	<b>87</b>	<b>74</b>	<b>38</b>	<b>103</b>	<b>28</b>	<b>162</b>	<b>98</b>	<b>398</b>

\* Contract spraying of 259 acres of alligator weed on recently acquired property.  
([APPENDIX V – HERBICIDE APPLICATION CONTRACT](#))

Table 3. Foliar herbicide treatments by plant species and acres sprayed on the Tickfaw River, Louisiana during 2013.

<b>TICKFAW RIVER ACRES OF AQUATIC VEGETATION TREATED IN 2013</b>			
<b>SPECIES</b>	<b>ACRES</b>	<b>HERBICIDES*</b>	<b>APPLICATION RATES</b>
Water hyacinth	66	2,4-D	0.5 gal/acre
Alligator weed	19	2, 4-D	0.5 gal/acre
	16	Glyphosate	0.75 gal/acre
	259**	Imazapyr	0.5 gal/acre
Pennywort	17	2, 4-D	0.5 gal/acre
	6	Glyphosate	0.75 gal/acre
Common salvinia	2	Diquat/Flumioxazin	0.5 gal/ 4oz /acre
	10	Glyphosate	0.75 gal/acre
	3	Diquat	0.75 gal/acre
<b>TOTAL</b>	<b>398</b>		

\*All herbicide applications included a non-ionic surfactant at a rate of 0.25 gal/acre.

\*\* Contract spraying on recently acquired property.

### *Limitations*

During high water periods within this river complex, common salvinia floods into the surrounding swamps where it flourishes. LDWF spray crews are unable to access these areas due to the stands of dense timber and shallow water. Consequently, healthy populations of common salvinia drain out of the swamp into the river when water levels drop.

## HISTORY OF REGULATIONS

### Standardized Regulations

Statewide standard commercial and recreational regulations apply. Recreational and commercial fishing regulations may be viewed at the link below:

<http://www.wlf.louisiana.gov/regulations>

## FISH KILLS / DISEASE HISTORY

- August 1992 – Hurricane Andrew
- August 2005 – Hurricane Katrina
- September 2008 – Hurricane Gustav
- August 2012 – Hurricane Isaac

## CONTAMINANTS / POLLUTION

### Water quality

In 2012, the EPA listed Tickfaw River as an impaired river due to mercury in fish tissue, low dissolved oxygen, high water temperatures, fecal coliforms and dissolved solids.

[http://iaspub.epa.gov/tmdl\\_waters10/attains\\_watershed.control?p\\_huc=08070203&p\\_state=LA&p\\_cycle=&p\\_report\\_type=T](http://iaspub.epa.gov/tmdl_waters10/attains_watershed.control?p_huc=08070203&p_state=LA&p_cycle=&p_report_type=T)

### Fish consumption advisory

A consumption advisory was issued July 8, 2002 after an unacceptable level of mercury was detected in bowfin, freshwater drum, largemouth bass and white crappie. Women of child bearing age and children under the age of seven should limit bowfin consumption to no more than one meal per month. Other adults and children over the age of seven should limit fish consumption to no more than four meals a month. This advisory was last revised May 29, 2003.

<http://www.deq.louisiana.gov/portal/PROGRAMS/MercuryInitiative/FishConsumptionandSwimmingAdvisories.aspx>

## BIOLOGICAL

### Fish sampling

To monitor the sport fishery of Tickfaw River, LDWF initiated standardized sampling in 1990 (Table 4).



Table 4. Historical and scheduled fisheries sampling efforts on Tickfaw River, LA from 1990 – 2016.

<b>TICKFAW RIVER SAMPLING</b>	
1990	Electrofishing – 5 stations (fall)
1996	Electrofishing – 4 stations (summer and fall)
1997	Electrofishing – 5 stations (fall)
2006	Electrofishing – 4 stations (fall)
2007	Electrofishing – 4 stations (spring and fall)
2008	Electrofishing – 4 stations (spring); 3 stations (fall)
2009	Electrofishing – 4 stations (spring and fall)
2010	Electrofishing – 4 stations (spring and fall)
2012	Electrofishing – 4 stations (spring and fall) Hoop nets – 3 sites
2013	Electrofishing – 4 stations (spring, summer and fall) Ichthyoplankton trawls – 2 stations (May, June, July)
2014	Electrofishing – 4 stations (spring and fall) Ichthyoplankton trawls – 2 stations (April, May, June)
2015	Electrofishing – 4 stations (spring and fall) Hoop nets – 3 sites
2016	Electrofishing – 4 stations (spring and fall)
NOTE: Years of post-hurricane electrofishing efforts measure natural recovery of fishery.	

#### Lake Records

See LOWA state records <http://www.rodreel.com/LaFishRecords/ListFishRecords.asp>

Table 5. State record fishes captured by anglers Tickfaw River, LA.

SPECIES	WEIGHT (lbs)	DATE	STATE RANK
Spotted Bass	4.88	August 1976	1

### Species profile

A list of species collected or known from the Amite River is found in Table 6:

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Table 6. Family, Scientific and Common Names of fish species collected or known from the Tickfaw River watershed.

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Achiridae – American soles
Northern hogchoker - <i>Trinectes maculatus</i> (Bloch and Schneider)
Acipenseridae – sturgeons
Gulf sturgeon, <i>Acipenser oxyrinchus desotoi</i> (Mitchill)*
Amiidae – bowfin
Bowfin, <i>Amia calva</i> (Linnaeus)
Aphredoderidae – trout perches
Pirate perch, <i>Aphredoderus sayanus</i> (Gilliams)
Anguillidae – freshwater eels
American eel, <i>Anguilla rostrata</i> (Lesueur)
Atherinopsidae - New World silversides
Brook silverside, <i>Labidesthes sicculus</i> (Cope)
Inland silverside, <i>Menidia beryllina</i> (Cope)
Catostomidae – suckers
River carpsucker, <i>Carpiodes carpio</i> (Rafinesque)
Lake chubsucker, <i>Erimyzon sucetta</i> (Lacépède)
Creek chubsucker, <i>Erimyzon oblongus</i> (Mitchill)
Western creek chubsucker, <i>Erimyzon claviformis</i> (Cook)
Sharpfin chubsucker, <i>Erimyzon tenuis</i> (Agassiz)
Northern hogsucker, <i>Hypentelium nigricans</i> (Lesueur)
Spotted sucker, <i>Minytrema melanops</i> (Rafinesque)
Blacktail redhorse, <i>Moxostoma poecilurum</i> (Jordan)
Smallmouth buffalo, <i>Ictiobus bubalus</i> (Rafinesque)
Bigmouth buffalo, <i>Ictiobus cyprinellus</i> (Valenciennes)
Black buffalo, <i>Ictiobus niger</i> (Rafinesque)
Centrarchidae - sunfishes
Shadow bass, <i>Ambloplites ariommus</i> (Viosca)
Flier, <i>Centrarchus macropterus</i> (Lacépède)
Banded pygmy sunfish, <i>Elassoma zonatum</i> (Jordan)
Green sunfish, <i>Lepomis cyanellus</i> (Rafinesque)
Orangespotted sunfish, <i>Lepomis humilis</i> (Girard)

Bluegill, *Lepomis macrochirus* (Rafinesque)  
Warmouth sunfish, *Lepomis gulosus* (Cuvier)  
Dollar sunfish, *Lepomis marginatus* (Holbrook)  
Longear sunfish, *Lepomis megalotis* (Rafinesque)  
Redear sunfish, *Lepomis microlophus* (Günther)  
Bantam sunfish, *Lepomis symmetricus* (Forbes)  
Spotted bass, *Micropterus punctulatus* (Rafinesque)  
Northern largemouth bass, *Micropterus salmoides* (Lacépède)  
Florida largemouth bass, *Micropterus floridanus* (Kassler et al.)  
Hybrid largemouth bass, *M. floridanus* X *M. salmoides*  
White crappie, *Pomoxis annularis* (Rafinesque)  
Black crappie, *Pomoxis nigromaculatus* (Lesueur)

Clupeidae – herrings

Skipjack herring, *Alosa chrysochloris* (Rafinesque)  
Gizzard shad, *Dorosoma cepedianum* (Lesueur)  
Threadfin shad, *Dorosoma petenense* (Günther)  
Gulf menhaden, *Brevoortia patronus* (Goode)

Cyprinidae - carps and minnows

Speckled chub, *Macrhybopsis aestivalis* (Girard)  
Silver chub, *Macrhybopsis storeriana* (Kirtland)  
Clear chub, *Hybopsis winchelli* (Girard)  
Golden shiner, *Notemigonus crysoleucas* (Mitchill)  
Pallid shiner, *Hybopsis amnis* (Hubbs and Greene)  
Striped shiner, *Luxilus chrysocephalus* (Rafinesque)  
Ribbon shiner, *Lythrurus fumeus* (Evermann)  
Longnose shiner, *Notropis longirostris* (Hay)  
Taillight shiner, *Notropis maculatus* (Hay)  
Cherryfin shiner, *Lythrurus roseipinnis* (Hay)  
Weed shiner, *Notropis texanus* (Girard)  
Blacktail shiner, *Cyprinella venusta* (Girard)  
Mimic shiner, *Notropis volucellus* (Cope)  
Pugnose minnow, *Opsopoeodus emiliae* (Hay)  
Fathead minnow, *Pimephales promelas* (Rafinesque)  
Bullhead minnow, *Pimephales vigilax* (Baird and Girard)  
Cypress minnow, *Hybognathus hayi* (Jordan)  
Common carp, *Cyprinus carpio* (Linnaeus)  
Emerald shiner, *Notropis atherinoides* (Rafinesque)  
Silver carp, *Hypophthalmichthys molitrix* (Valenciennes)

Elopidae – tarpons

Ladyfish, *Elops saurus* (Linnaeus)

Engraulidae – anchovies

Bay anchovy, *Anchoa mitchilli* (Linnaeus)

Esocidae – pikes

Grass pickerel, *Esox americanus* (Gmelin)

Chain pickerel, *Esox niger* (Lesueur)

Fundulidae – topminnows and killifishes

Golden topminnow, *Fundulus chrysotus* (Günther)

Studfish, *Fundulus catenatus* (Storer)

Blackstripe topminnow, *Fundulus notatus* (Rafinesque)

Blackspotted topminnow, *Fundulus olivaceus* (Storer)

Broadstripe topminnow, *Fundulus euryzonus* (Suttkus and Cashner)

Ictaluridae - North American catfishes

Black bullhead, *Ameiurus melas* (Rafinesque)

Yellow bullhead, *Ameiurus natalis* (Lesueur)

Brown bullhead, *Ameiurus nebulosus* (Lesueur)

Blue catfish, *Ictalurus furcatus* (Lesueur)

Channel catfish, *Ictalurus punctatus* (Rafinesque)

Flathead catfish, *Pylodictis olivaris* (Rafinesque)

Tadpole madtom, *Noturus gyrinus* (Mitchill)

Speckled madtom, *Noturus leptacanthus* (Jordan)

Brindled madtom, *Noturus miurus* (Jordan)

Freckled madtom, *Noturus nocturnes* (Jordan and Gilbert)

Lepisosteidae - gars

Spotted gar, *Lepisosteus oculatus* (Winchell)

Longnose gar, *Lepisosteus osseus* (Linnaeus)

Shortnose gar, *Lepisosteus platostomus* (Rafinesque)

Alligator gar, *Lepisosteus spatula* (Lacépède)

Moronidae – temperate basses

Yellow bass, *Morone mississippiensis* (Jordan and Eigenmann)

White bass, *Morone chrysops* (Rafinesque)

Mugilidae – mullets

Striped mullet, *Mugil cephalus* (Linnaeus)

Petromyzontidae - northern lampreys

Southern brook lamprey, *Ichthyomyzon gagei* (Hubbs and Trautman)

Paralichthyidae – flounders

Southern flounder, *Paralichthys lethostigma* (Jordan and Gilbert)

Percidae – perches

Naked sand darter, *Ammocrypta beanii* (Jordan)

Bluntnose darter, *Etheostoma chlorosomum* (Hay)

Swamp darter, *Etheostoma fusiforme* (Girard)  
Cypress darter, *Etheostoma proeliare* (Hay)  
Speckled darter, *Etheostoma stigmaeum* (Jordan)  
Gulf darter, *Etheostoma swaini* (Jordan)  
Banded darter, *Etheostoma zonale* (Cope)  
Blackside darter, *Percina maculata* (Girard)  
Blackbanded darter, *Percina nigrofasciata* (Agassiz)  
Saddleback darter, *Percina vigil* (Hay)  
Dusky darter, *Percina sciera* (Swain)  
Scaly sand darter, *Ammocrypta vivax* (Hay)  
Logperch, *Percina caprodes* (Rafinesque)

Poeciliidae – livebearers

Western mosquitofish, *Gambusia affinis* (Baird and Girard)  
Sailfin molly, *Poecilia latipinna* (Lesueur)  
Least killifish, *Heterandria formosa* (Girard)

Polyodontidae – paddlefishes

Paddlefish, *Polyodon spathula* (Walbaum)

Sciaenidae – drums

Freshwater drum, *Aplodinotus grunniens* (Rafinesque)  
Atlantic croaker, *Micropogonias undulatus* (Linnaeus)

Sparidae – porgies

Sheepshead, *Archosargus probatocephalus* (Walbaum)  
Pinfish, *Lagodon rhomboides* (Linnaeus)

Syngnathidae – pipefishes and seahorses

Gulf pipefish, *Syngnathus scovelli* (Evermann and Kendall)

\* Listed as a species of special concern in Louisiana and a federally listed threatened species by the USFWS

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Nomenclature and phylogenetic order follows Nelson, *et al.* 2004. Common and Scientific Names of Fishes from the United States, Canada, and Mexico, 6<sup>th</sup> Edition. American Fisheries Society Special Publication 29. 386 pp. Exceptions are noted.

### Stocking and genetics

Initial stocking efforts were a response to major fish kills caused by Hurricane Andrew. Subsequent stockings were the result of Hurricanes Katrina and Gustav. Tickfaw River has been stocked with 368,214 Florida strain largemouth bass since 1996 (Table 7).

Table 7. The stocking history of the Tickfaw River, LA from 1995 – 2011.

<b>YEAR</b>	<b>LMB FINGERLINGS</b>	<b>LMB ADULT</b>	<b>FLMB FRY</b>	<b>FLMB FINGERLINGS</b>	<b>BLUEGILL FINGERLINGS</b>	<b>CHANNEL CATFISH FINGERLINGS</b>
1995	10,000					
1996				46,264		
1997			14,000			
1999				33,899		
2000				14,244		
2001				10,000		
2002				19,585		
2003				10,036		
2004				10,013		
2005				10,046		
2006		150		50,260	50,937	30,156
2007				49,784	62,874	50,000
2008				49,450		14,168
2009				47,183	98,360	5,867
2010		150				1,836
2011				3,450		
<b>TOTAL</b>	<b>10,000</b>	<b>300</b>	<b>14,00</b>	<b>354,214</b>	<b>212,171</b>	<b>102,027</b>

A majority of these fish were stocked post hurricanes Katrina and Gustav, in response to public concern over the massive fish kills that occurred following these storm events. In the post storm absence of predation and competition, the Florida largemouth bass should have become dominant in this coastal river, when in fact this species did not even become established. Genetic testing conducted in 2010 indicated that less than 9% of the Florida genome was present in the sample results (Table 8). The stocking of Florida largemouth bass in the nearby Tangipahoa, Amite and Blind Rivers showed a similar fate; the ineffectiveness to establish this genotype during post hurricane recovery. This tenacity for recovery of native largemouth bass populations has also been noted in other coastal river systems including the Calcasieu, Mermentau and Sabine rivers in southwest Louisiana following Hurricanes Rita (2005) and Ike (2008). These systems received little to no stocking of largemouth bass before and after the hurricane related fish kills, yet yielded record sampling catch rates during the first two years of recovery. These observations suggest that native coastal populations of largemouth bass (and other indigenous fish species) have adapted to these periodic storm events and rapid recovery is part of the natural selection process.

Table 8. Results of 2010 genetic testing for the Florida gene on Tickfaw River, Louisiana.

Number of fish	% Northern	% Hybrid	% Florida
120	93	7	0

Threatened/endangered/exotic species

Paddlefish (*Polyodon spathula*) and Gulf sturgeon (*Acipenser oxyrinchus desotoi*) are inhabitants of the Lake Pontchartrain Basin.

In early summer of 2012, two adult silver carp (*Hypophthalmichthys molitrix*) were identified in nearby Amite River. Also in the Amite River, an adult silver carp was identified in late summer of 2013. These fish may have been introduced via the Bonne Carre Spillway operation by the US Army Corps of Engineers during the 2011 flood event. To date, no juveniles have been observed. Sampling efforts began in summer of 2013 to determine if Asian carp are reproducing in the watershed.

## ANGLER SURVEYS

No angler surveys conducted

## HYDROLOGICAL CHANGES

- Urbanization around segments of the river has changed the natural hydrology.

## WATER USE

Hunting

Yes. Maurepas Swamp Wildlife Management area encompasses the lower reaches of the Tickfaw River and its tributaries ([APPENDIX IV – MAUREPAS SWAMP WMA AND MAP](#)).

Boating, Skiing, Swimming

Yes

Irrigation

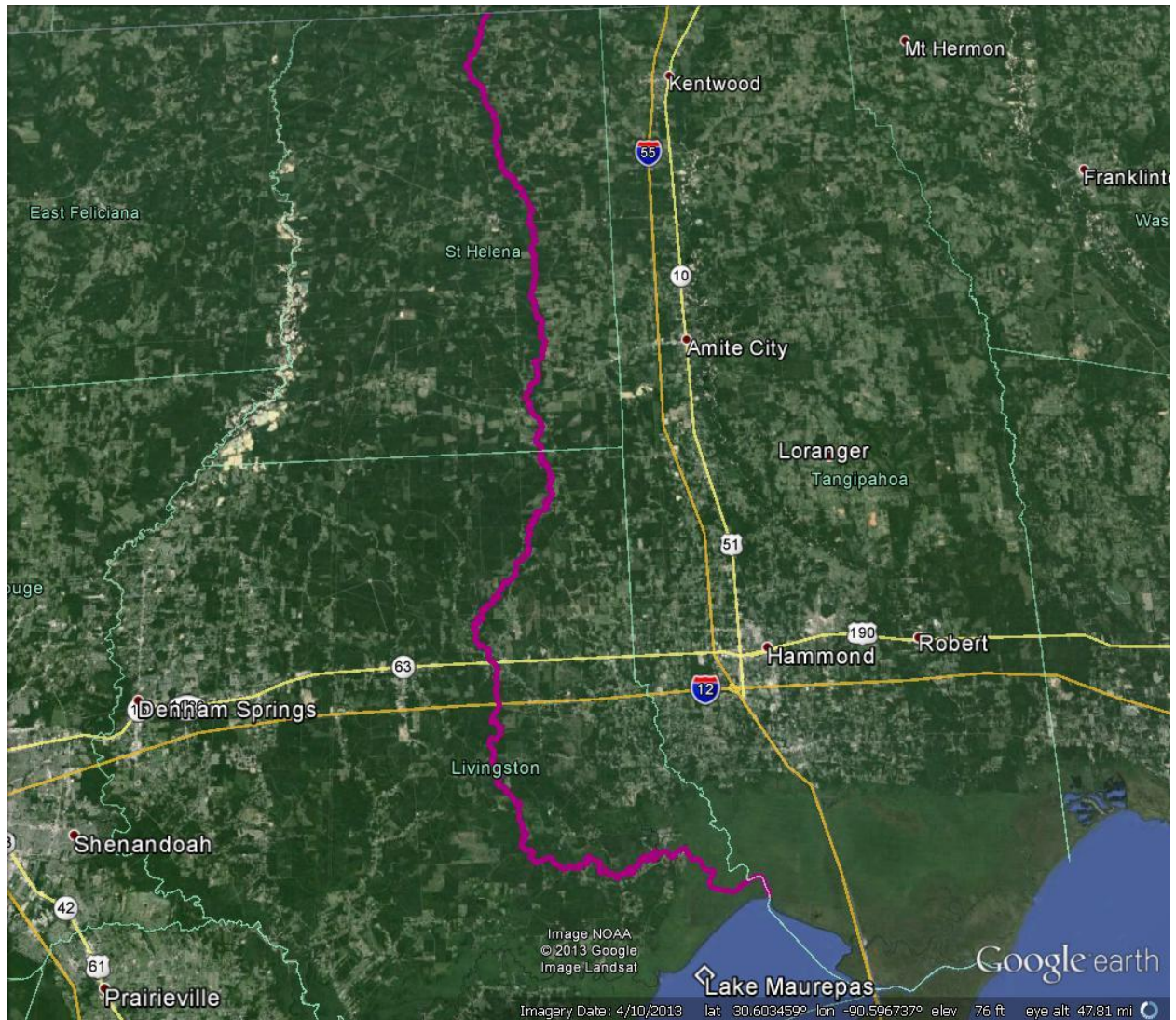
No

Fishing

Yes

## APPENDIX I – MAP AND PARISHES

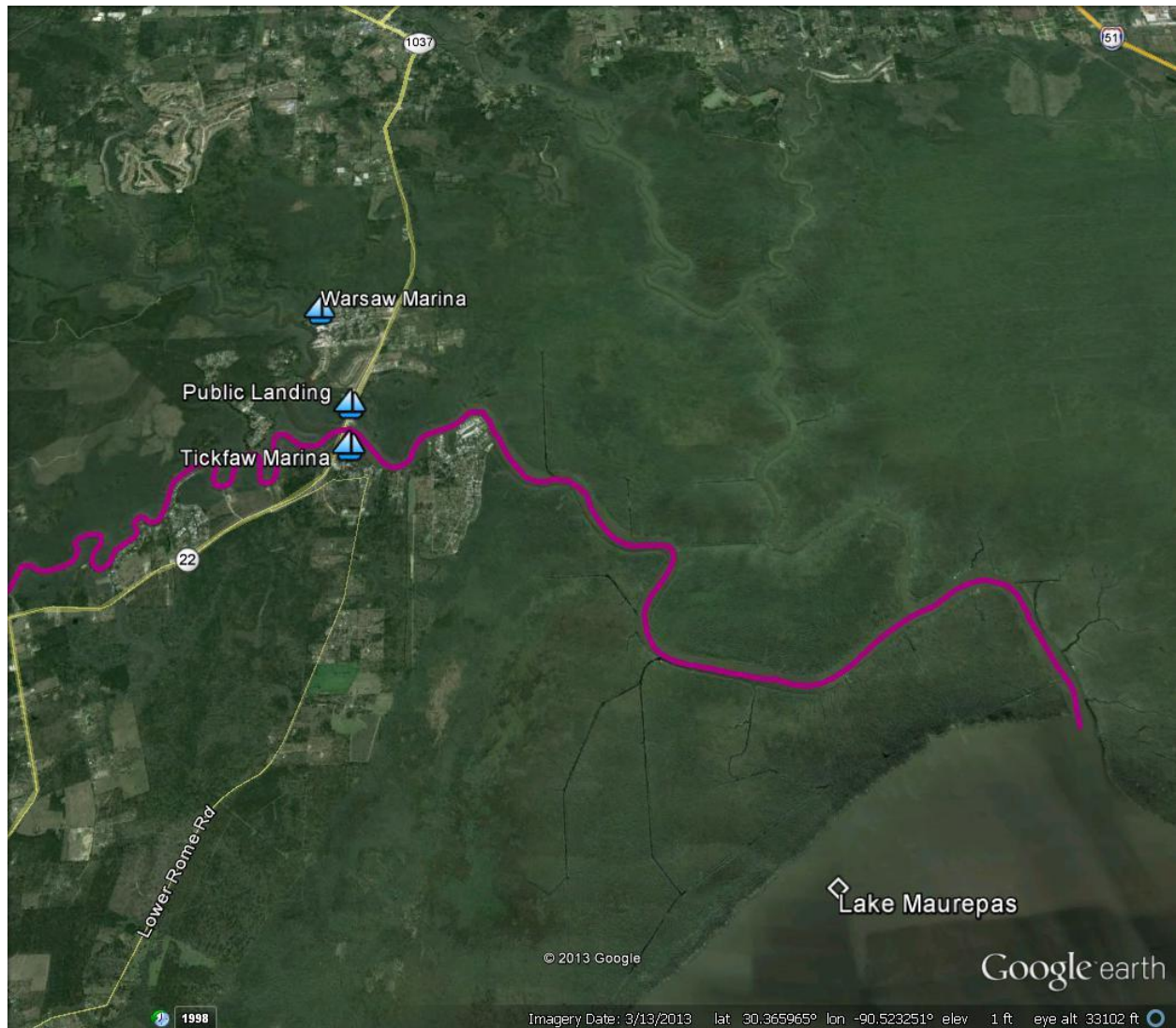
[\(Return to Parishes Located\)](#)





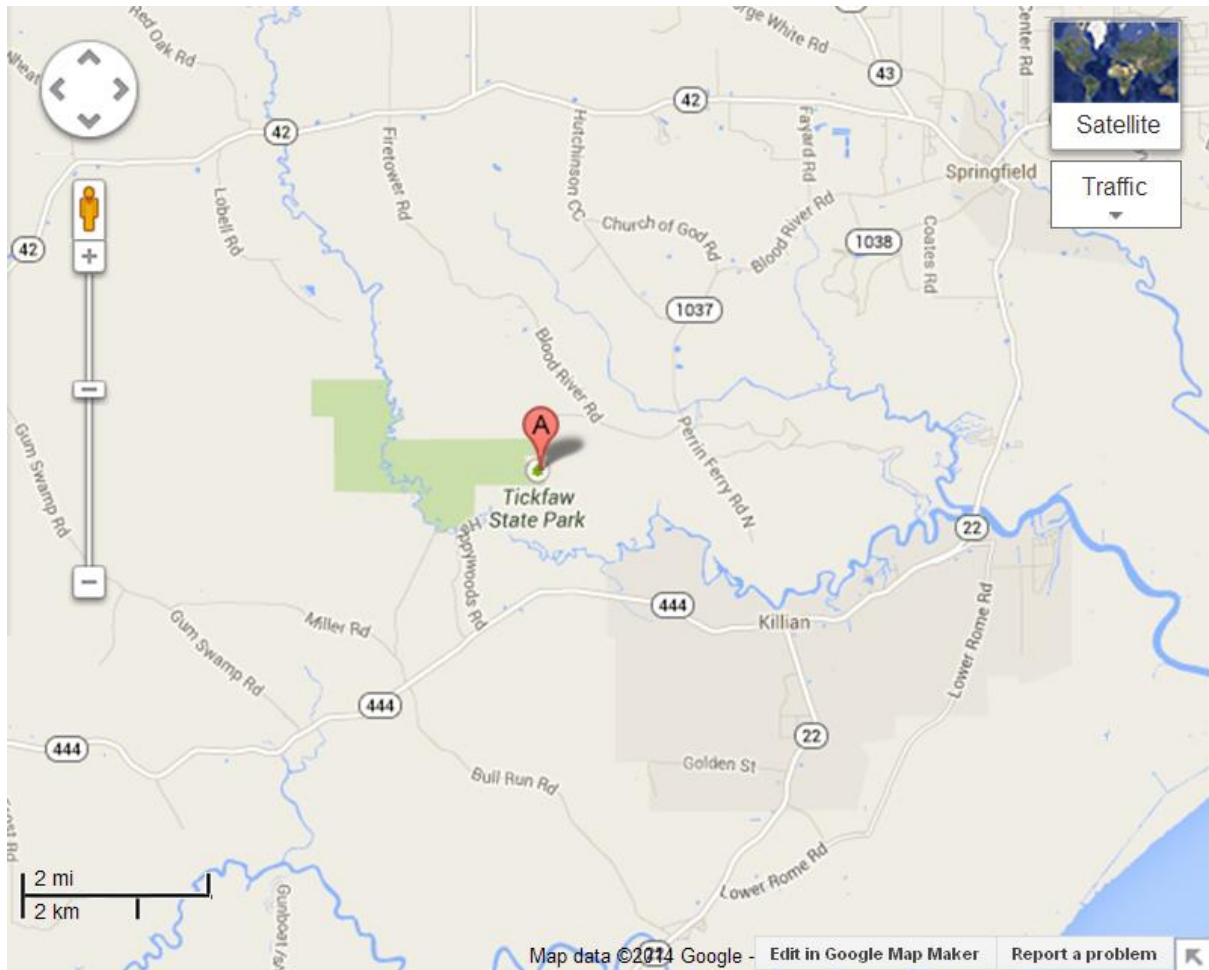
## APPENDIX II – MAP AND LANDING

[\(Return to Boat Docks\)](#)



## APPENDIX III – MAP AND STATE PARK

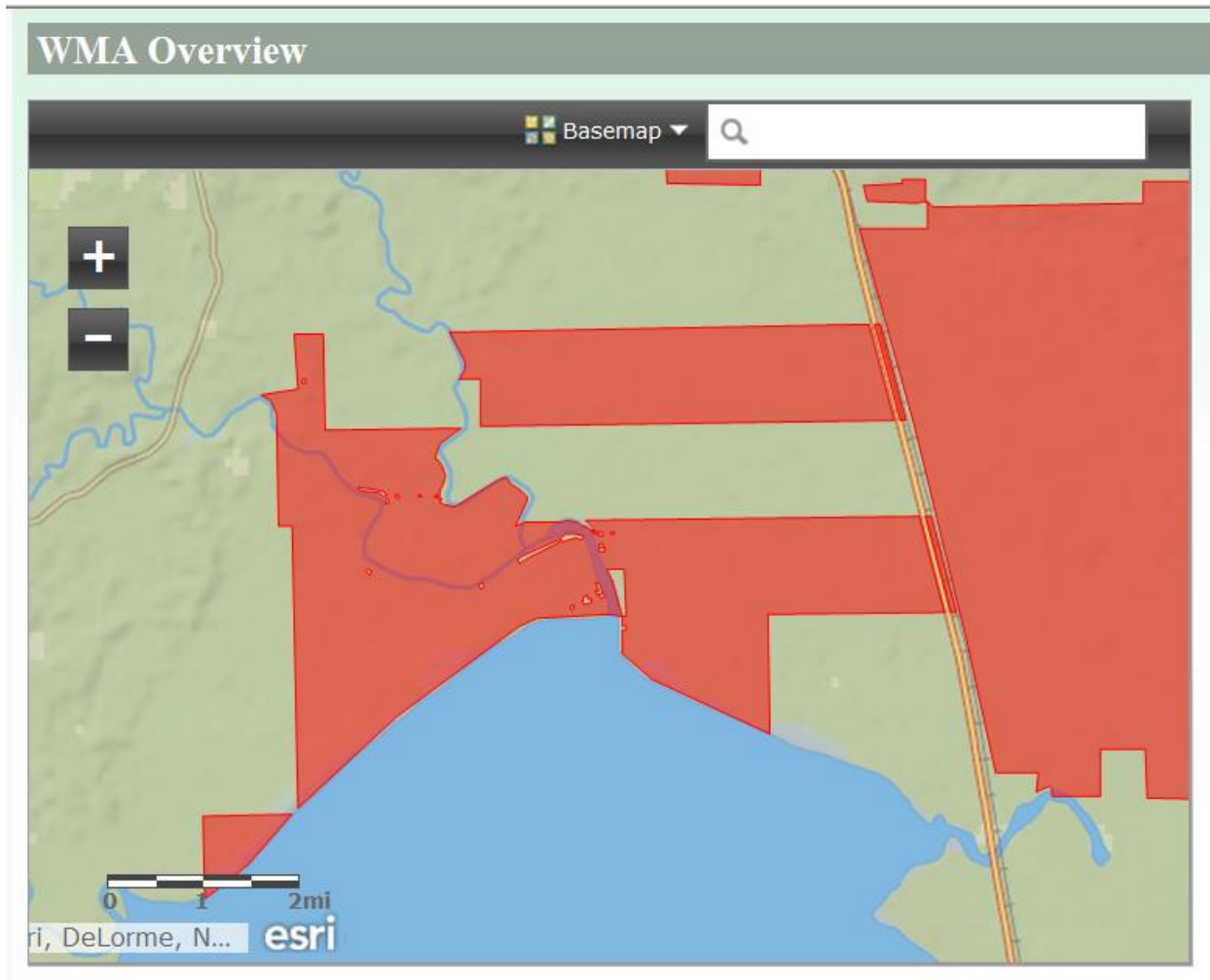
[\(Return to State/Federal facilities\)](#)



## APPENDIX IV – MAUREPAS SWAMP WMA MAP

[\(Return to State/Federal Facilities\)](#)

[\(Return to Hunting\)](#)





# APPENDIX V – HERBICIDE APPLICATION CONTRACT

(Return to Chemical Control)

## AQUATIC PLANT CONTROL CONTRACT EVALUATION

Contract Name: Tickfaw River Date: 8/19/13 LDWF Evaluator: J. Winslow  
 Water Body: Tickfaw River + canals Contractor: Chem Spray South  
 Contract Description: Alligatorweed is being treated w/ Imazapyr + Inergy in many canals off of the Tickfaw River.  
 Total LDWF Man-Days: 6  
 Spray Equipment: Airboat, pump-sprayer Total Acres Treated: 259  
 Contract Days Paid: 5 Contract Days Worked: 5  
 Treatment Dates: (8/19/13 - 8/21/13) - (10/1/13 - 10/10/13) % Kill: 90  
 Contractor Cost: \$ 4,155.00 Herbicide Cost: \$ 6080 + 2301 = \$8381.00  
 Trimble Route Name: \_\_\_\_\_ Starting Waypoint: 30.376480 N - 90.551279 W  
 Air Temp: warm → 73°F - 93°F Wind: Varied  
 Weather Conditions: Warm, often partly-cloudy, variable winds

Include a description and severity of the plant problem being addressed, the results of the treatment, and suggestions to improve future contracts in similar areas or situations: \_\_\_\_\_

Mamade canals off of the Tickfaw + Natalbany Rivers have become clogged with alligatorweed. These canals were formerly private, but are now public due to the expansion of Murrepas WMA. They have been neglected for years. They were sprayed w/ Imazapyr w/ excellent results. After the first treatment, 90% of the problem was gone. The 2nd treatment took care of the rest

### HERBICIDE USED

Type: <u>Ecomazapyr 2SL</u>	Amount: <u>129.5 gallons</u>	Rate: <u>0.5 gpa</u>
Type: _____	Amount: _____	Rate: _____
Type: _____	Amount: _____	Rate: _____
Type: _____	Amount: _____	Rate: _____

### SURFACTANT USED

Type: <u>Inergy</u>	Amount: <u>65 gallons</u>	Rate: <u>0.25 gpa</u>
Type: _____	Amount: _____	Rate: _____
Type: _____	Amount: _____	Rate: _____

## APPENDIX V – Continued

[\(Return to Chemical Control\)](#)

